REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claim Amendments

Claim 1 has been amended to recite that after said treatment, aftertreatment is effected by adding an acid, and then discharging the liquor, wherein the resulting leather may then be used for further finishing for completion. Support for this amendment is found in the first paragraph on page 24 of Applicants' specification. No new matter has been added to the application.

Claim Objection and Indication of Allowable Subject Matter

Applicants kindly thank the Examiner for indicating that claims 15 and 16 would be allowable if rewritten in independent form to contain all the limitations of the base claim and any intervening claims. In view of the following comments, Applicants respectfully assert that these claims are patentable in their present form. Accordingly, it is respectfully requested that the objection to claims 15 and 16 be withdrawn.

Rejections Under 35 U.S.C. § 103(a)

The rejection of claims 1-13, 17, 18, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Baker et al. (U.S. 6,750,188) in view of Komforth et al. (U.S. 6,033,590);

as well as the rejection of claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Baker et al. in view of Komforth et al., and further in view of Bank et al. (U.S. 5,209,775),

are respectfully traversed.

The Position of the Examiner

The Examiner's basis for the rejection is of record. The Examiner's response to Applicants' previously asserted arguments can be summarized as follows. [These comments are the position of the Examiner, and Applicants do not acquiesce to these statements.]

Komforth et al. teach the treatment of wet-white leather, and further teach that non-

chromium based tanning agents may be used. (See column 2, lines 15-25, and column 3, lines 25-29.) Baker et al. teach that shoes may be of any natural leather surface (column 6, lines 21-24), and that protecting the shoes from washing away of, e.g., chromium, must be accomplished. Baker et al. also teach that shoes of any natural leather surface may be used in the washing process. Komforth et al. teach that the treatment of shoes by non-chromium tanning methods is conventional. Applicants' claims are simply directed towards treating wet white leather with an anionic reagent, followed by an organic polyamine. Komforth et al. teach making shoes from these treated leathers. Baker et al. is relied upon to demonstrate that leather shoes previously treated with fatliquors and tanning agents are conventionally washed, and that detergents comprising tetraethylenepentamine are useful as polymer dispersants in washing compositions which provide shoes with protection during a treatment cycle.

Applicants' Arguments

Applicants respectfully disagree with the Examiner's position for the following reasons.

Applicants' claims require treatment of "wet-white" leather, i.e., an unfinished leather

Initially, in item 8 (on pages 4-5) of the Office Action of May 7, 2008, the Examiner stated,

> Nothing in the instant claims requires the treatment of a "raw product". The [E]xaminer argues that the instant claims recite both skins and leather, of which leather would be a final product. Applicant[s'] arguments regarding wet-white leather and wet-blue leather are also moot since the instant claims do not necessitate the presence of wet-white leather nor prohibit the presence of wet-blue leather. The claims are simply directed towards treating leather with an anionic reagent such as an anionic dye followed by an organic polyamine which is clearly met by the prior art.

This position is maintained in part in the recent Office Action, i.e., the Examiner states in the last sentence on page 3 of the outstanding Office Action,

> The claims are simply directed towards treating wet white leather with an anionic reagent such as an anionic reagent such as an anionic dye followed by an organic polyamine which is clearly met by the prior art. (Emphasis added.)

It is important to note that the Examiner now acknowledges that Applicants' claims are directed towards treating wet-white leather. (This limitation was added in response to the Office Action of May 7, 2008.) This is an important point, as this limitation requires that the substrate to be treated is solely an unfinished leather, as a wet-white leather is a synthetic pre- and re-tanned leather. Thus, wet-white leather is completely tanned, yet requires subsequent treatment steps, i.e., dying and finishing. Furthermore, wet-white leather is free of chrome.

Even after Applicants' proves for treating wet-white leather, a finished leather is still not achieved. For example, in the discussion of the Examples in Applicants' specification, after the treatment is performed, "[f]inishing is effected in the customary matter."

Additionally, please see the first and third paragraphs on page 24 of Applicants' specification, which state,

> After the treatment, aftertreatment is expediently effected by means of the addition of an acid, for example formic acid, and the liquor is then discharged. The leather can then be used for the further finishing for completion.
>
> . . . The fibrous materials thus produced are therefore distinguished by excellent wet strength, so that the auxiliaries exhibit virtually no bleeding in the further finishing in the wet process and the properties obtained are retained.

As discussed above, Applicants have amended claim 1 based on these passages from the specification. This amendment is made to further clarify that the claimed process relates to the treatment of wet-white leather, which is a "raw product", i.e., an unfinished leather.

Baker et al. relates to treatment of a **finished** leather,

not a "wet-white" leather, as in Applicants' claims

Baker et al. are concerned with a washing solution for used shoes, i.e., a finished leather. Thus, the Baker et al. reference is inapplicable to Applicants' claims, and the reference should be disregarded from consideration for this reason alone.

Summary of Applicants' Claims, and Distinctions over Cited References

However, for completeness in responding to the outstanding Office Action (which still relies upon Baker et al.), Applicants again discuss the distinctions between the claimed invention and the teachings of the cited references.

Below is a Table demonstrating distinctions between Applicants' claimed process, and the teachings of the cited references.

Feature	Instant application	Komforth US 6,033,590	Baker US 6,750,188
Leather	Unfinished	Unfinished	Finished
Wet-white	X	X	-----
Wet-blue	-----	X	-----
Treatment	Fixing of anionic reagents onto wet white leather	Simultaneously retanning & fatliquoring wet white or wet blue leather	Treatment of shoes (cleaning, conditioning, disinfecting, deodorising)

In summary, both the instant application and Komforth et al. are concerned with the treatment of a not-yet-finished (or "semi-finished" according to Komforth et al.) leather, while Baker et al. are concerned with the treatment of a finished leather.

Applicants' claim 1 can be summarized as follows:

A process for treatment of wet-white leather or skins (=anionic character) with anionic reagents (e.g., anionic dyes) in aqueous liquor, wherein said leather/skin is pretanned with dialdehydes, and retanned with organic (anionic) tanning agents, wherein said anionic reagents are fixed onto the anionic substrate (wet-white leather) with polyamines having at least three free amino groups (or polyamine reaction products with alkylsilanes), followed by a treatment with an acid.

The term "wet-white" was introduced in claim 1 in the previous response, in order to clarify, at the beginning of the claim, that the substrate to be treated is an intermediate ("raw product") during the process for the preparation of a finished leather. One of ordinary skill in the art would understand that the claims are directed towards treatment of a wet- white leather, based on the phrase "pretanned with dialdehydes", which necessarily results in a wet-white leather.

A goal of Applicants' invention is to improve poor fastness to perspiration. Wet-white leather has an anionic character, as do treatment agents/auxiliaries (e.g., dyes). Accordingly, fixing the anionic treatment agents/auxiliaries onto the anionic substrate (wet-white leather) to be treated is difficult, as the anionic agents repel from the anionic substrate. This results in poor fastness to perspiration.

Applicants have discovered that this problem can surprisingly be solved with a certain fixing agent based on polyamines, which allows fixing of anionic agents onto anionic wet-white leather.

Baker et al. discuss treating **finished** leather, and
leather made from wet-blue leather

Claim 1 of Baker et al. discusses a treating composition for shoes, whereby the composition includes a Cr^{+3} binding agent. Thus, Baker et al. is concerned with shoes, fabricated from an already finished leather. This is in sharp contrast to the unfinished leather of Applicants' claims.

Additionally, Baker et al. discuss a leather made from wet-blue leather (as a Cr^{3+} binding agent refers obviously to chromium tanned leather). Again, this is in sharp contrast to Applicants' claims, which recite treatment of wet-white leather.

As discussed above, Applicants' invention involves fixing agents onto a wet-white leather. On the contrary, Baker et al. teach "that protection of the shoes [finished leather] from washing away of fatliquors and/or oils and/or tanning agents such as chromium [wet-blue] must be accomplished." (Please see the Examiner's comments on page 3 of the Office Action.) This is clearly distinct from Applicants' claimed process, and thus it is unclear why these features are discussed in relation to Applicants' invention.

Similarly, the Examiner states (top of page 4 of the Office Action) that, "Baker is relied

upon to demonstrate that that leather shoes previously treated with fatliquors and tanning agents are conventionally washed (column 2, lines 15-20) and that detergents comprising the tetraethylenepentamine 2) (column 39, lines 50-55) are useful as polymer dispersants in washing compositions which provide shoes with protection during a treatment cycle. For this reason there is motivation to combine Baker and Komforth."

[The citation correctly reads, ". . . conventionally washing of shoes in an automatic clothes washing machine damages the shoes . . . " (Baker, column 2, lines 19-20).]

No motivation to use tetraethylenepentamine

Additionally, as discussed in the previous response, the Examiner selects "tetraethylenepentamine" from an extensive list of "cleaning system benefit agents" which are disclosed in Baker et al. from column 11, line 44 up to the beginning of "Preferred conditioning system benefit agents" in column 43, line 26, thus spanning some 30 columns of the reference. Thus, disclosed at length are dispersants, surfactants, calcium/magnesium removal agents, and pH modifiers (column 11, lines 46-48). As also previously discussed, polyamines are discussed under "clay soil removal/antiredeposition agents" (column 39, lines 26/27+29/30) and "Antiredeposition" can be read as "not-fixing". Thus, this teaching seems to be in sharp contrast with Applicants' goal of "fixing" anionic agents onto wet-white leather.

Consequently, the Examiner has selected "tetraethylenepentamine" from an extensive list, but has not provided any reason, other than the impermissible use of hindsight, for doing so. Additionally, the Examiner has failed to provide any arguments as to why a substance being described as a dispergent, which can be useful as a removal agent, might lead to the use of said agent as a fixing agent for fixing anionic agents onto an anionic substrate.

Baker et al. fail to teach the newly added "acid" step

Additionally, the use of polyamines as fixing agents leads to the intended result only if being part of a complete "wet end" process, which always includes the treatment with an acid as one of the last process steps. The reason is, without the addition of an acid, those products which have a high pH-value have the characteristic to detach anionic substances from the substrate. For

example ammonia (alkaline, high pH) is used to detach an excess of dye (anionic) from the leather in case of an accidental excess use of a dye.

The fixing effect of Applicants' recited polyamine can be explained as follows: The addition of an acid will protonate the amino groups of the polyamine to cationic ammonium groups. Based on the multifunctionality of the polyamine, the polyamine can consequently function as a fixing agent for fixing the anionic groups of the agents (e.g., dyes) onto the wet-white substrate. This also explains the effectiveness for wet-white, as wet-white contains many carboxyl groups, in contrast to "wet-blue", where the carboxyl groups are "occupied" by chromium.

Baker et al. clearly fail to describe the additional treatment with an acid, as required by Applicants' amended claims.

No motivation to combine Baker et al. with Komforth et al.

As discussed above, Baker et al. relates to finished leather, rather than unfinished leather, as required by Applicants' claims. Thus, as was previously asserted (in Applicants' prior responses), Baker et al. relates to non-analogous art.

One of ordinary skill in the art would not turn to Komforth et al. to remedy the deficiencies of the Baker et al. reference. Komforth et al. is concerned with the retanning and fatliquoring process steps during the preparation of leather, and discloses a composition which allows said process steps be performed simultaneously.

The Examiner has failed to provide any arguments as to why one of ordinary skill in the art would combine the references. The Examiner has also failed to provide any reason why one of ordinary skill in the art would look to the teachings of Komforth et al. to solve the problem of fixing an anionic agent onto an anionic substrate. In fact, the Komforth et al. reference is totally silent about fixing problems.

Rather, the Examiner has made statements regarding what each reference teaches, and concluded by making the unsupported statement that there is motivation. For the reasons set forth in detail above, Applicants respectfully disagree.

Additionally, as mentioned in Applicants' prior response, Komforth et al. do not

differentiate between wet-blue (cationic) and wet-white (anionic) leather as a substrate for the disclosed treatment. In fact, the two provided examples (Examples 4 and 7) use wet-blue leather as a substrate.

Summary of Applicants' Arguments

In summary, the preparation of a ready-to-sell leather or leather product involves many steps.

The teachings of Komforth et al. relate to the treatment of a leather which is already pretanned, and the reference discloses treatment of the pretanned leather with a composition which allows retanning and fatliquoring simultaneously. Pretanning and retanning methods are not limited and thus can include wet-white and wet-blue leather. The leather must subsequently be finished. This disclosure seems to involve the earlier steps in the production of leather.

Applicants' claimed process relates to treatment of a leather which is already pre- and re-tanned. Thus, it can be said that Applicants' process occurs subsequently to the step of Komforth et al. Specifically, Komforth et al. teach a process for retanning and fatliquoring a pretanned leather, while Applicants' process treats pre-tanned and re-tanned leather. Additionally, Applicants' process requires that the tanning was performed in a chrome free manner, to achieve wet-white leather, as this is the substrate which is treated with agents having anionic character which have to be fixed onto the wet-white leather. After Applicants' fixing, the leather is subsequently treated with an acid, and then can subsequently be finished. This method relates to the "middle" steps in the production of leather.

Baker et al. are concerned with the treatment of an already finished leather (shoe), including shoes made from natural leather. Accordingly, the leather of Baker et al. is already pre- and re-tanned, fatliquored, dyed and finished. From said shoe leather a shoe is prepared. Baker et al. disclose a washing solution for washing an already used shoe. As stated in column 2, lines 22-25 of Baker et al., "Without being bound by theory, it is believed that such a contact (agitator of a washing machine) can damage the paint on the shoes ..." Thus, it is assumed that the leather used for making the shoe was already treated with a dye, and that Baker et al. is not concerned with fixing of a dye (or paint) onto the leather, as Baker et al. is concerned with

avoiding any damage of the paint. This disclosure relates to the steps taken after the end of the production of leather.

Additionally, it is assumed that the alkaline polyamine will function as discussed earlier. Specifically, the polyamines are discussed by Baker et al. under "clay soil removal/antiredeposition agents" because those products which have a high pH-value (including polyamines) have the characteristic to detach anionic substances from the substrate. Thus, the polyamine in a process of Baker et al. will function as a removal agent. This is clearly contrary to Applicants' invention, where the polyamine will function as a fixing agent.

Accordingly, one of ordinary skill in the art would not combine the teachings of the references in the manner suggested by the Examiner, nor would such a combination render obvious Applicants' invention.

Bank et al. does not remedy the deficiencies of the above-discussed references

Additionally, as mentioned above, Bank et al. is merely relied upon for the teaching of alkyltrialkyloxysilanes. Since claim 14 is directly dependent on claim 1, claim 14 is patentable over the teachings of Baker et al. and Komforth et al. for the reasons stated above. The teachings of Bank et al. fail to remedy the deficiencies of the combination of references. Furthermore, the substrate "leather shoes" selected from the surfaces disclosed in the paragraph beginning at column 4, line 47 is clearly distinct from the "wet-white" leather of Applicants' claims.

For these reasons, the invention of claims 1-14, 17, 18, 35 and 36 is clearly patentable over the cited combinations of references.

Conclusion

Therefore, in view of the remarks, it is submitted that each of the grounds of objection and rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Jens FENNEN et al.

By:_____

Amy E. Schmid
Registration No. 55,965
Attorney for Applicants

AES/emj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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